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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/033,502	12/27/2001	Soumya Roy	543P008	8659

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EXAMINER

BLOUNT, STEVEN

ART UNIT	PAPER NUMBER
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2661

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/033,502	ROY ET AL.	
	Examiner	Art Unit	
	Steven Blount	2661	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 December 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 - 21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 - 21 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claim 9 is objected to because of the following informalities: "nodes receiver" in the second line of claim 9 is a minor typographical error. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent 5,400,329 to Tokura et al.

Tokura et al teaches the invention as described in col 4 lines 10+, lines 24+, and also col 5 lines 16+ and col 9 lines 13+ (the decrease denoted by a factor of $1/k$), wherein at the point of congestion, the bandwidth is estimated as being the transmission rate value.

4. Claim 16 is rejected under 35 U.S.C. 102(b) as being anticipated by U.S. patent Application 2002/0044528 to Pogrebinsky et al.

Pogrebinsky et al teaches increasing the bit rate up until the point of congestion, wherein the transmission rate at this point is the bandwidth. See par 26 and 28.

Claim Rejections - 35 USC § 103

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 1, 2, and 4 – 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,400,329 to Tokura et al.

With regard to claim 1, Tokura et al teaches increasing the data rate until congestion is reached, and then the successive transmission rates are sent at a deviation between the previous (ie, non-congested) rate. See col 4 lines 10+, lines 24+, and also col 5 lines 16+ and col 9 lines 13+ (the decrease denoted by a factor of 1/k).

It is noted that although the throughput is not mentioned in Tokura, since the throughput is the same as the transmission rate up until the point of congestion (see page 20, par 56 of applicants specification), it would have been obvious to one of ordinary skill in the art at the time of the invention to have used a deviation from the previous transmission rate (specified in terms of 1/k) alone, without reference to the said throughput, when determining the available bandwidth.

With regard to claim 2, bottleneck bandwidth is not discussed in Tokura.

With regard to claim 4, note the use of packets.

With regard to claim 5, see col 14 lines 50+ where a circuit for receiving rate increase information is discussed.

With regard to claim 6, control channels would be an obvious choice for communicating control information such as this.

With regard to claim 7 – 8, the use of reliable channels such as TCP would also be an obvious choice for communications such as these.

With regard to claims 9 - 11, bottleneck bandwidth information and transmission rate are obvious choices for the information to be sent.

With regard to claims 12 – 15, see the rejections above.

With regard to claim 17, see the rejection of claim 1 above and further note that bandwidth is proportional to the transmission rate.

With regard to claims 18 – 21, see the discussion of Tokura above.

7. Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. patent 5,400,329 to Tokura et al as applied above to claims 1 – 2 and 15 – 16, and further in view of U.S. patent 6,614,763 to Kikuchi et al.

Tokura et al teaches the invention as described above, but does not teach prior knowledge of the bottleneck bandwidth. This is taught in Kikuchi et al who also teaches a similar invention. See particularly column 8, line 65.

It would have been obvious to one of ordinary skill in the art at the time of the invention to have provided Tokura et al with the bottleneck bandwidth in light of the teachings of Kikuchi et al in order to provide a means for estimating a more accurate measure of the optimum non-congested bandwidth.


Art Unit: 2661

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven Blount whose telephone number is 703-305-0319. The examiner can normally be reached on M-F 9:00 - 5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Chau Nguyen, can be reached on 571 - 272 - 3071. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Ajit Patel
Primary Examiner

SB

9/22/05